

Appln. No. 10/763,646
Docket No. GP-302784 / GM2-0038

REMARKS / ARGUMENTS

Status of Claims

Claims 1, 5-13 and 15-17 are pending in the application and stand rejected. Applicant herein provides clarifying remarks to traverse the rejections, leaving Claims 1, 5-13 and 15-17 for consideration.

Applicant respectfully submits that the rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

The accompanying remarks were not presented earlier because Applicant did not fully appreciate the nature of the Examiner's position until the Applicant was advised in more detail of the position by the final rejection. In the absence of any claim amendments, Applicant respectfully submits that no further search should be required.

Rejections Under 35 U.S.C. §102(b)

Claims 1 and 5-11 stand rejected under 35 U.S.C. §102(b) as being anticipated by Ichikawa et al. (U.S. Patent No. 5,595,581, hereinafter Ichikawa).

Claims 12 and 15-17 stand rejected under 35 U.S.C. §102(b) as being anticipated by Ichikawa.

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, *in a single prior art reference.*" *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the *** claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Furthermore, the single source must disclose all of the claimed elements "*arranged as in the claim.*" *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984) (Emphasis added). Missing elements

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may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. Titanium Metals Corp. v. Banner, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

Claim 1 recites, inter alia,

"...*a housing*; and

a wall-flow filtration element *contained within said housing*, said wall-flow filtration element having pores defining a porosity sufficient to trap exhaust particulates and to pass ash particles;

said wall-flow filtration element comprising *a ceramic monolith structure...*"

Claim 7 further recites "*said housing*".

Claim 8 recites, inter alia,

"...wherein the total surface area of said first end-plugs is *less than about 1/240* the total surface area of said internal walls."

Claim 10 recites, inter alia,

"...*a housing* having a first end and a second end;

a wall-flow filtration element arranged within said housing comprising *a ceramic monolith structure* having a plurality of porous internal walls defining inlet and outlet channels, said inlet and outlet channels being separated by said porous internal walls to permit exhaust flow through the pores between said inlet and outlet channels;

said inlet channel comprising an inlet port at one end and a first end-plug at the opposite end and configured to receive the exhaust flow at said inlet port, said inlet port arranged at said first end of *said housing*;

said outlet channel comprising an outlet port at one end and a second end-plug at the opposite end and configured to discharge the exhaust flow at said outlet port, said outlet port arranged at said second end of *said housing...*"

Claim 11 recites, inter alia,

"...the total surface area of said first end-plug is *substantially less than* the total surface area of said internal walls; and

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wherein the total surface area of said first end-plugs is *less than about 1/240* the total surface area of said internal walls.”

In rejecting Claim 1 as being anticipated by Ichikawa, the Examiner remarks that Ichikawa discloses “a housing (not numbered, part of the exhaust system 10)”. Paper 082005, page 4.

In respectful disagreement with the Examiner, Applicant finds Ichikawa to be absent any disclosure of *a housing arranged as claimed*, and finds no inference that the exhaust system 10 of Ichikawa necessarily requires the claimed element of *a housing arranged as claimed*. Since Ichikawa clearly defines an exhaust pipe 11, but not a housing arranged as claimed around exhaust gas filters 12, it is quite possible that gas containment in the exhaust gas filters 12 of Ichikawa is provided by some other undisclosed means. Absent disclosure of a specific element, *it is improper for purposes of anticipation to read the missing element into a reference*. Accordingly, Applicant respectfully submits that a housing, arranged as claimed, is not disclosed in Ichikawa either explicitly or implicitly, and absent disclosure of each and every element arranged as claimed, Ichikawa cannot properly be used for purposes of anticipation.

In rejecting Claim 1, the Examiner further remarks that Ichikawa discloses “a ceramic monolithic structure” by making reference to element 20 of Ichikawa. Paper 082005, page 4.

In respectful disagreement with the Examiner, Applicant finds Ichikawa to disclose a honeycomb structure having a number of gas flow passages defined by partition walls 20. Column 4, lines 4-6.

In defining the claimed invention, Applicant specifically included the limitations of “*ceramic*” and “*monolithic*”, which have specific and well established meanings, and are used in accordance with those meanings.

In comparing Ichikawa with the claimed invention, Applicant finds only one usage of the word ceramic in Ichikawa, which is used at column 6 line 22 to describe a ceramic fiber based foam adhesive that may be used as a sealer. Nowhere in Ichikawa does Applicant find any mention of the honeycomb structure comprising ceramic.

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Accordingly, absent disclosure of each and every element of the claimed invention arranged as claimed, Ichikawa cannot properly be used for purposes of anticipation.

In further comparing Ichikawa with the claimed invention, Applicant finds Ichikawa to disclose a honeycomb structure, but not a *monolithic* honeycomb structure. In the claimed invention, Applicant is desirous of having a *ceramic monolithic* structure that has no seams. In Ichikawa, not only is there no discussion of the honeycomb structure being a monolithic structure, but also, there is no illustration of the honeycomb structure being a monolithic structure. Since it is quite possible to have a honeycomb structure that is not monolithic, it cannot be said that Ichikawa explicitly or implicitly discloses the same. Absent disclosure of a specific element, *it is improper for purposes of anticipation to read the missing element into a reference*. Accordingly, Applicant respectfully submits that Ichikawa is absent disclosure of each and every element of the claimed invention arranged as claimed, and therefore cannot properly be used for purposes of anticipation.

Claims 7 and 10 also recite "housing", and Claims 10 and 12 also recite "ceramic monolithic structure". Accordingly, and for at least the reasons set forth above regarding Claim 1, Applicant submits that Ichikawa cannot properly be used for purposes of anticipation against Claims 7, 10 and 12.

In rejecting Claim 8, the Examiner agrees that Ichikawa "does not explicitly recite the exact ratio" of less than about 1/240, but instead remarks that "the ratio can be readily calculated". The Examiner then proceeds to justify the rejection on grounds of anticipation by describing an elaborate calculation procedure. Paper 082005, pages 5-6.

In respectful disagreement with the Examiner, Applicant submits that such an elaborate calculation procedure that is *not disclosed in Ichikawa*, but instead is based on several assumptions made by the Examiner, falls wholly short of establishing proper grounds of rejection under an anticipation rejection.

For example, the Examiner takes the square root of the cell density to arrive at the cell pitch, thereby *assuming* that the geometry of the cell is that of a square (Paper 082005, page 6). However, Applicant finds Ichikawa to be completely absent any

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disclosure of the cell being square (as opposed to a rectangle or a circle for example), and the Examiner has not stated with specificity where such disclosure may be found in Ichikawa.

For example, the Examiner finds the total surface area of the first end plug by calculating the square of a cell width dimension, thereby *assuming* that the geometry of the first end plug is a square (Paper 082005, page 6). However, Applicant finds Ichikawa to be completely absent any disclosure of the first end plug being square (as opposed to a rectangle or a circle for example), and the Examiner has not stated with specificity where such disclosure may be found in Ichikawa.

For example, the Examiner finds the surface area of the internal walls by multiplying four times the cell width by the cell height, thereby further *assuming* that the geometry of the cell is a square (Paper 082005, page 6). However, Applicant finds Ichikawa to be completely absent any disclosure of the cell being square (as opposed to a rectangle or a circle for example), and the Examiner has not stated with specificity where such disclosure may be found in Ichikawa.

For example, the Examiner finds the ratio of the surface area of the first end plugs to the surface area of the internal walls by dividing the total surface area of the first end plug by 2, thereby *assuming* that only every other cell is plugged by a first end plug (Paper 082005, page 6). However, Applicant finds Ichikawa to be completely absent any definitive disclosure of only every other cell being plugged by a first end plug, and the Examiner has not stated with specificity where such disclosure may be found in Ichikawa.

For example, the Examiner finds the ratio of the surface area of the first end plugs to the surface area of the internal walls by dividing the surface area of the internal walls by the total surface area of the first end plug divided by 2, thereby *assuming* that there are a whole number of uniformly distributed cells in the available cross section of the honeycomb structure (Paper 082005, page 6). However, Applicant finds Ichikawa to be completely absent any disclosure of there being a whole number of uniformly distributed cells in the available cross section of the honeycomb structure, and the Examiner has not stated with specificity where such disclosure may be found in Ichikawa.

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For example, at column 4, line 33, Applicant finds Ichikawa to disclose a *cylindrical* honeycomb structure, which applicant finds to be the only description of geometric shape. In view of the cylindrical disclosure, it is unclear to Applicant where the Examiner finds reference to square geometries.

In view of the foregoing examples, Applicant submits that where Ichikawa is absent any explicit or implicit recitation of the ratio of surfaces being less than about 1/240, Ichikawa falls wholly short of disclosing each and every element of the claimed invention arranged as claimed, and that an *assumption*, or *combination of assumptions*, on the part of the Examiner is improper for purposes of anticipation, as the Examiner has not properly met the burden of showing each and every element of the claimed invention arranged as claimed. Accordingly, Applicant submits that Ichikawa cannot properly be used for purposes of anticipation against Claim 8.

Claim 11 also recites "...wherein the total surface area of said first end-plugs is *less than about 1/240* the total surface area of said internal walls". Accordingly, and for at least the reasons set forth above regarding Claim 8, Applicant submits that Ichikawa cannot properly be used for purposes of anticipation against Claim 11.

Absent anticipatory disclosure in Ichikawa of each and every element of the claimed invention arranged as claimed, Ichikawa cannot be anticipatory. Dependent claims inherit all of the limitations of the respective parent claim and any intervening claim.

In view of the foregoing remarks, Applicant submits that Ichikawa does not disclose each and every element of the claimed invention arranged as claimed and therefore cannot be anticipatory. Accordingly, Applicant respectfully submits that the Examiner's rejections under 35 U.S.C. §102(b) have been traversed, and requests that the Examiner reconsider and withdraw of these rejections.

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Rejections Under 35 U.S.C. §103(a)

Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ichikawa.

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that the obviousness rejection based on the References is improper as the References fail to teach or suggest each and every element of the instant invention. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are taught or suggested in the prior art. MPEP §2143.03.

Claim 13 depends from Claim 12, and as set forth above, Applicant has provided clarifying remarks to overcome the rejection of Claim 12 under 35 U.S.C. §102(b). In addition, Applicant submits that without more, Ichikawa fails to teach or suggest each and every element of the claimed invention in such a manner as to perform as the claimed invention performs.

In view of the foregoing, Applicant submits that Ichikawa fails to teach or suggest each and every element of the claimed invention and are therefore wholly inadequate in their teaching of the claimed invention as a whole, fails to motivate one skilled in the art to do what the patent Applicant has done, fails to offer any reasonable expectation of success in modifying Ichikawa to perform as the claimed invention performs, and discloses a substantially different invention from the claimed invention, and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of all rejections under 35 U.S.C. §103(a), which Applicant considers to be traversed.

In light of the forgoing, Applicant respectfully submits that the arguments set forth herein comply with 37 C.F.R. §1.116 and should therefore be entered, and with their entry that the Examiner's rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) have

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been traversed, and that the application is now in condition for allowance. Such action is therefore respectfully requested.

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 06-1130.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

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